IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

1. (currently amended) A method of assaying for vascular dysfunction in a <u>human</u> subject affected by a neurodegenerative disorder or another cognitive impairment, said method comprising<u>:</u>

<u>(a)</u>   <u>obtaining endothelium or cells derived from endothelium of said human subject,</u>

<u>(b)</u>   <u>culturing endothelial cells therefrom, and</u>

<u>(c)</u>   determining <u>whether</u> [[that]] there is inappropriate senescence and/or defective angiogenesis in at least <u>said</u> ~~endothelium of the subject or~~ <u>endothelial</u> cells ~~derived from endothelium of the subject~~ which is indicative of vascular dysfunction <u>in said human subject</u>.

2. (previously presented) The method according to Claim 1, wherein said subject is affected by Alzheimer's disease.

Claims 3-4 (canceled)

5. (previously presented) The method according to Claim 1, wherein there is at least (a) abnormal response by endothelial cells to angiogenic signaling; (b) anoikis, apoptosis, or programmed cell death; (c) mitotic catastrophe; (d) a storage disorder, or (e) a combination thereof.

6. (previously presented) The method according to Claim 1, wherein there is at least (a) defective differentiation of endothelial cells, (b) defective fusion of capillaries or vessels, (c) inappropriate regression of capillaries or vessels, or (d) a combination thereof.

Claims 7-26 (canceled)

27. (previously presented) A method of assaying for vascular dysfunction in a human subject affected by a neurodegenerative disorder or another cognitive impairment, said method comprising:

(a)   obtaining endothelial cells from said human subject,

(b)   culturing the endothelial cells to provide cells derived from endothelium, and

(c)   determining whether there is inappropriate senescence and/or defective angiogenesis in the cells derived from endothelium;

wherein inappropriate senescence and/or defective angiogenesis in the cells derived from endothelium is indicative of vascular dysfunction.

28. (previously presented) The method according to Claim 27, wherein there is at least abnormal response by cells derived from endothelium to angiogenic signaling.

29. (previously presented) The method according to Claim 27, wherein there is at least anoikis, apoptosis, or programmed cell death of cells derived from endothelium.

30. (previously presented) The method according to Claim 27, wherein there is at least mitotic catastrophe of cells derived from endothelium.

31. (previously presented) The method according to Claim 27, wherein there is at least a storage disorder of cells derived from endothelium.

32. (previously presented) The method according to Claim 27, wherein there is at least (a) defective differentiation of endothelial cells, (b) defective fusion of capillaries or vessels, (c) inappropriate regression of capillaries or vessels, or (d) a combination thereof.

33. (previously presented) A method of assaying for vascular dysfunction in a human subject affected by Alzheimer's disease, said method comprising:

(a)   obtaining endothelial cells from said human subject,

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(b)   culturing the endothelial cells to provide cells derived from endothelium, and

(c)   determining whether there is inappropriate senescence and/or defective
        angiogenesis in the cells derived from endothelium;

wherein inappropriate senescence and/or defective angiogenesis in the cells derived
from endothelium is indicative of vascular dysfunction.

34. (previously presented) The method according to Claim 33, wherein there is at least
abnormal response by cells derived from endothelium to angiogenic signaling.

35. (previously presented) The method according to Claim 33, wherein there is at least
anoikis, apoptosis, or programmed cell death of cells derived from endothelium.

36. (previously presented) The method according to Claim 33, wherein there is at least
mitotic catastrophe of cells derived from endothelium.

37. (previously presented) The method according to Claim 33, wherein there is at least
a storage disorder of cells derived from endothelium.

38. (previously presented) The method according to Claim 33, wherein there is at least
(a) defective differentiation of endothelial cells, (b) defective fusion of capillaries or
vessels, (c) inappropriate regression of capillaries or vessels, or (d) a combination
thereof.

39. (currently amended) A method of assaying for vascular dysfunction in a human
subject affected by Alzheimer's disease a neurodegenerative disorder or another
cognitive impairment, said method comprising determining whether there is defective
angiogenesis in at least endothelium of the human subject or cells derived from
endothelium of the human subject, wherein defective angiogenesis is indicative of
vascular dysfunction.

40. (previously presented) The method according to Claim 39, wherein there is at least (a) defective differentiation of endothelial cells, (b) defective fusion of capillaries or vessels, (c) inappropriate regression of capillaries or vessels, or (d) a combination thereof.